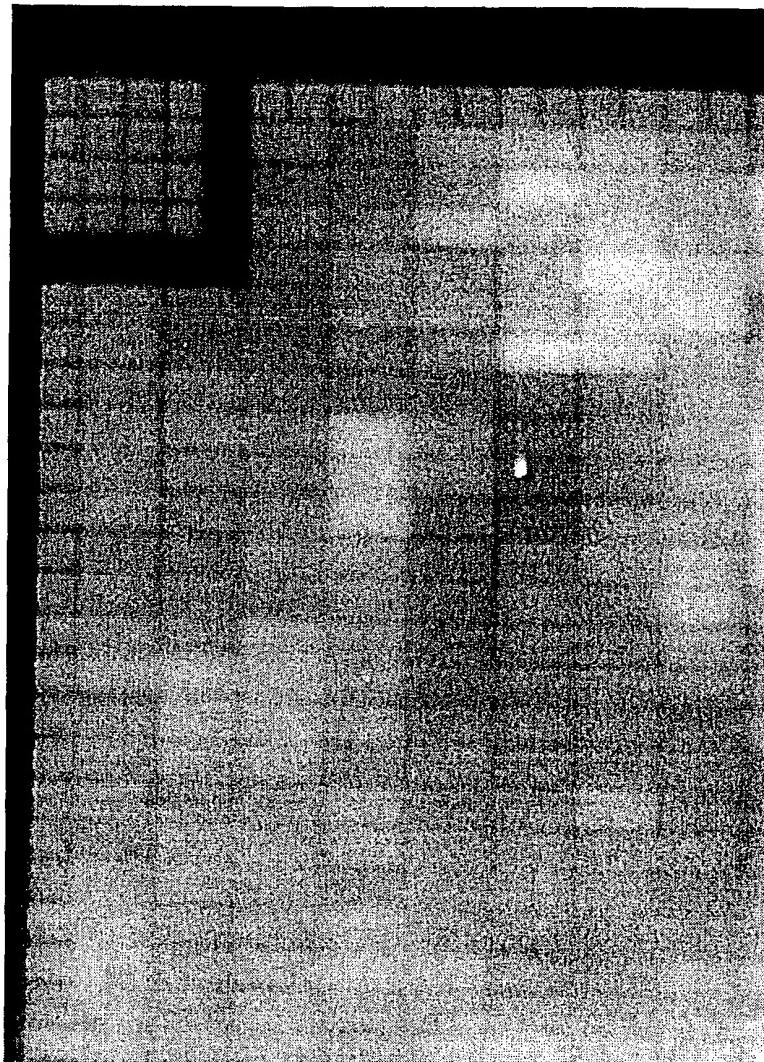


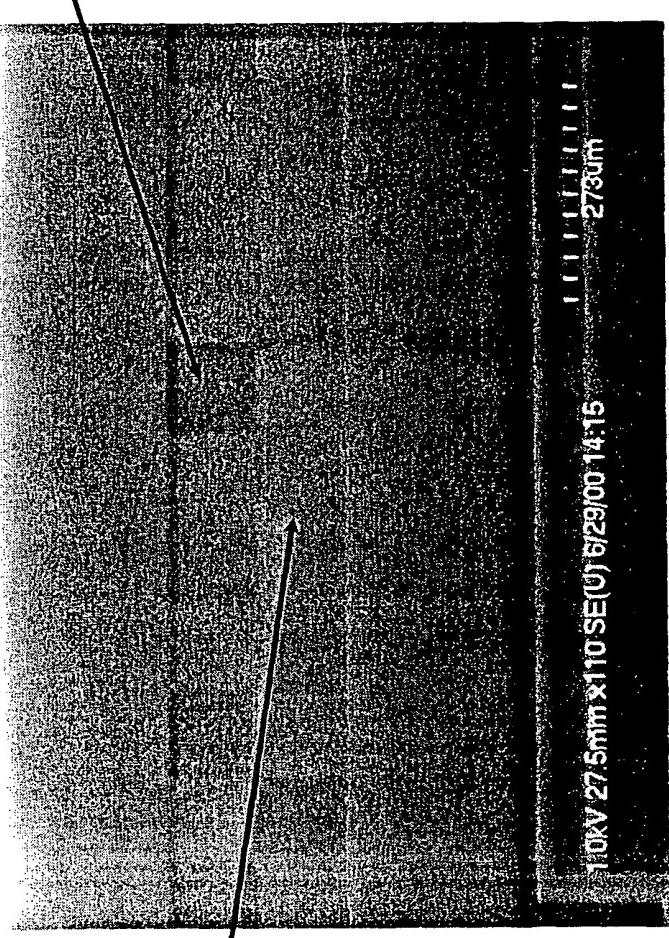
Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 1 of 9

Figure 1



Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 2 of 9

Figure 2

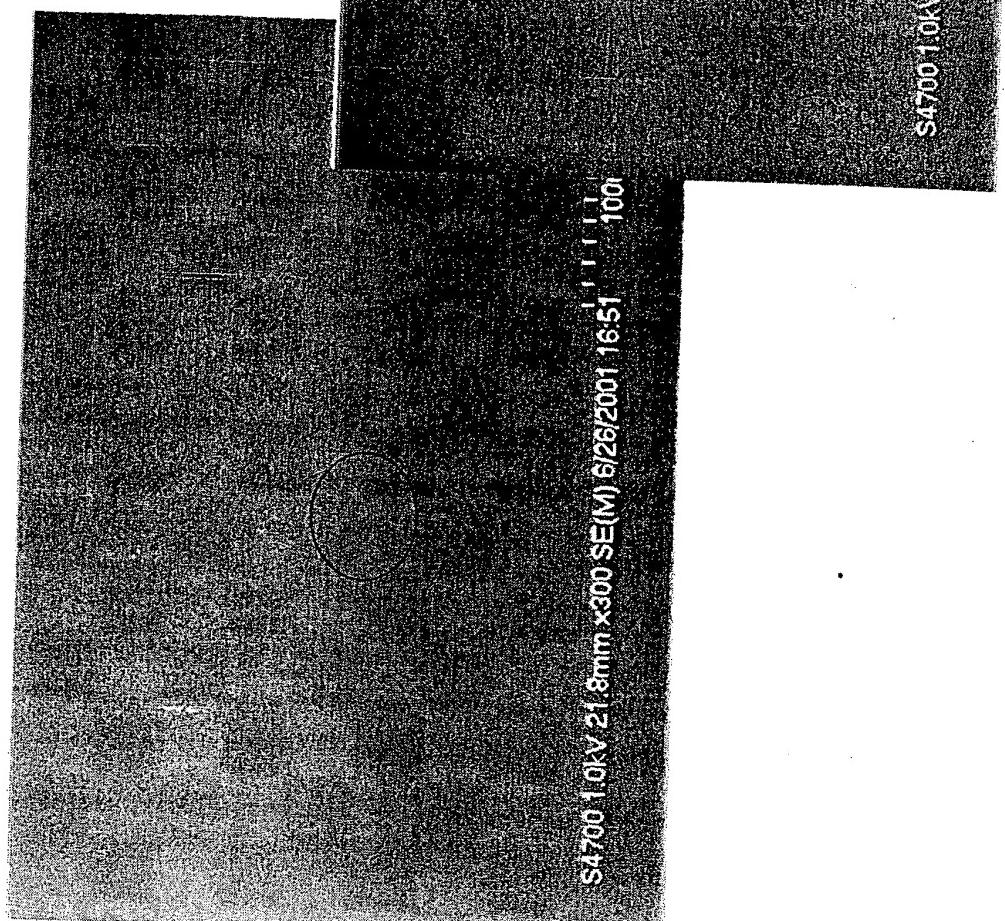


No Photo-  
lithography

Exposed twice

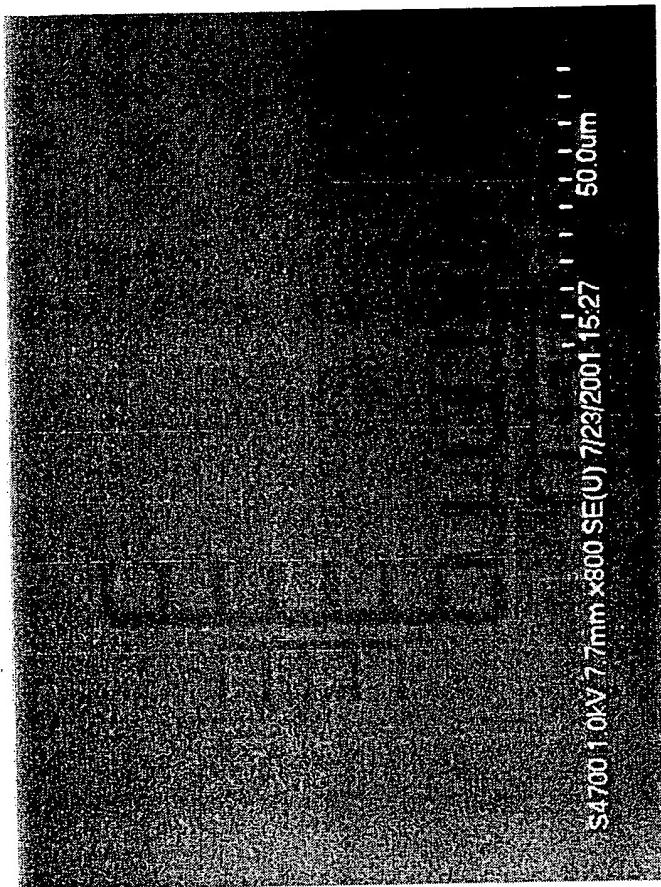
Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 3 of 9

Figure 3



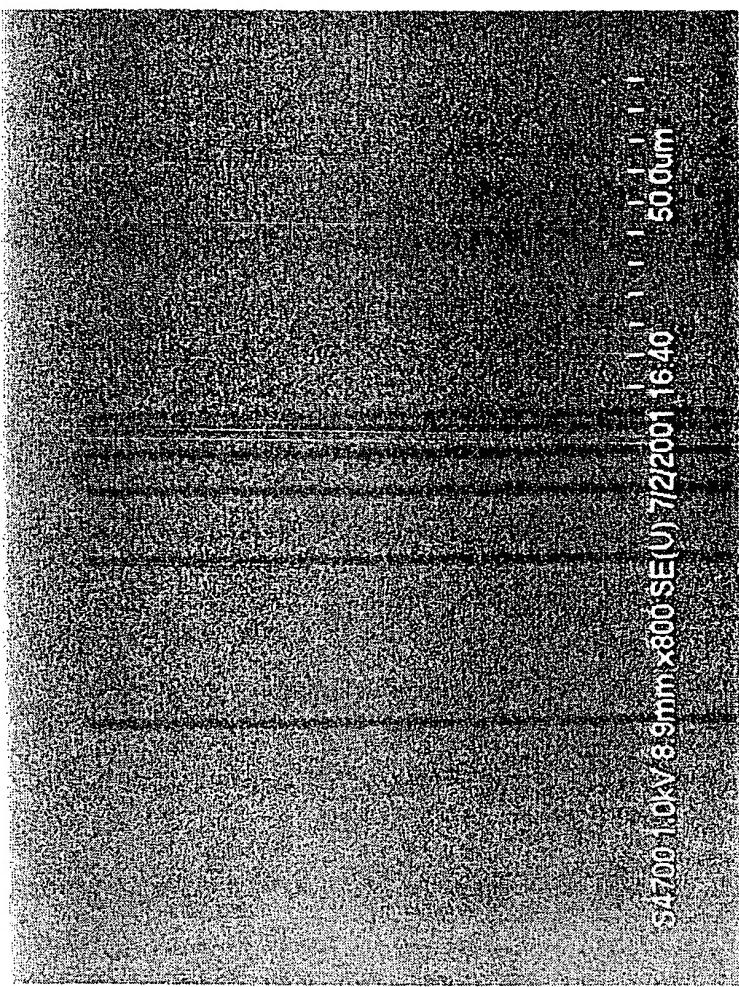
Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 4 of 9

Figure 4



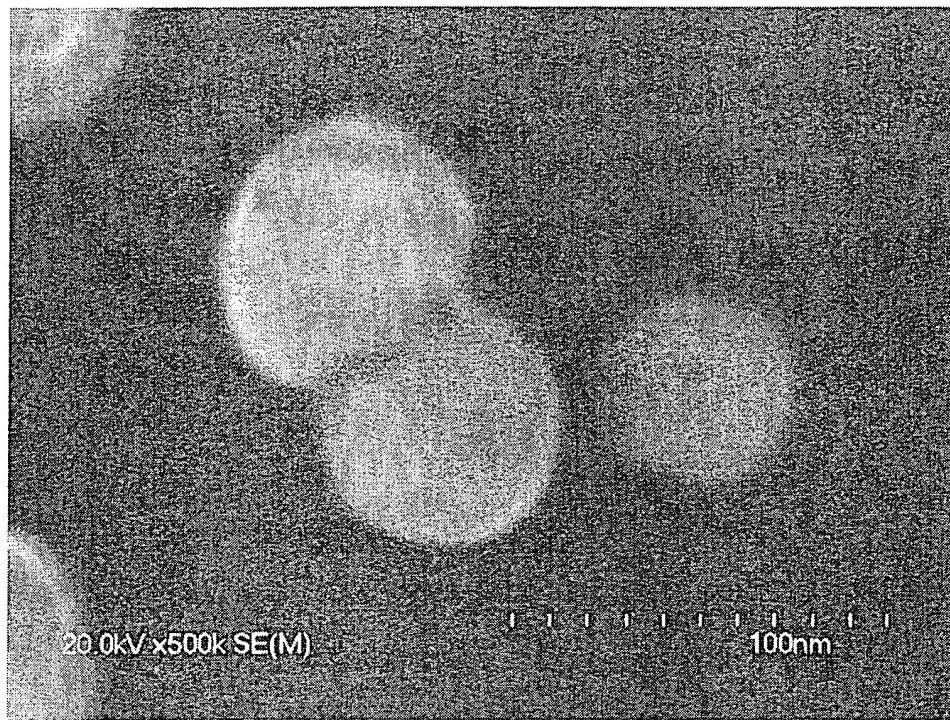
Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 5 of 9

Figure 5



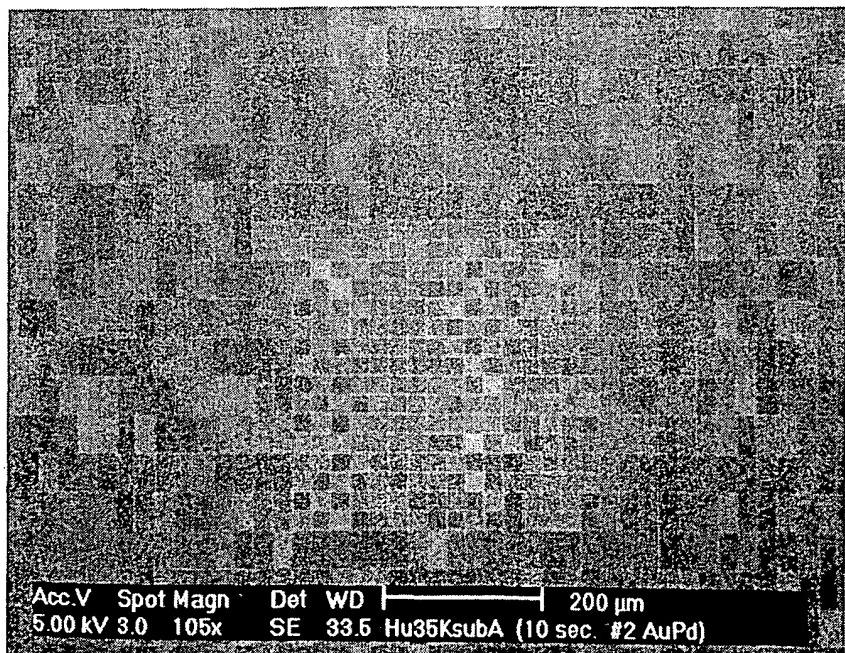
Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 6 of 9

## Figure 6



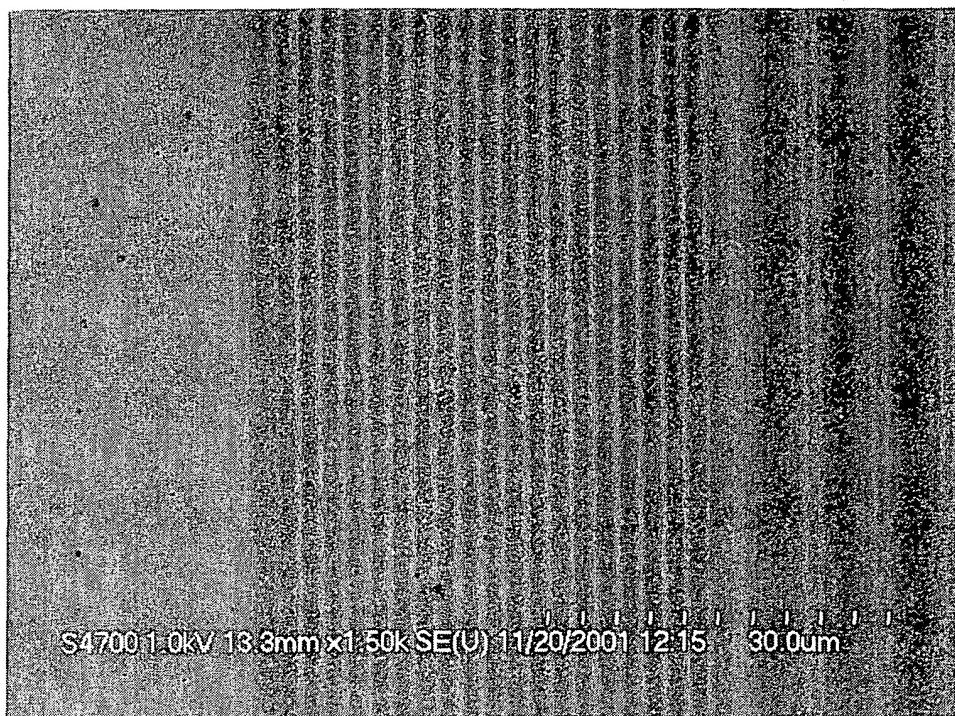
High magnification SEM  
image of gold  
nanospheres on glass

Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
Sheet 7 of 9



**Figure 7**

SEM image of unhybridized  
GeneChip® DNA microarray.



**Figure 8**

SEM image of  
photolithographic  
resolution lines on an  
unhybridized GeneChip®  
DNA microarray.

Title: Systems and Method for  
Examination of Microarrays Using  
Scanning Electron Microscope  
Inventor: Ciccolella et al.  
Attorney Docket No. 3429.1  
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Figure 9

Low magnification  
SEM image of  
streptavidin-gold  
labeled target in  
complex background

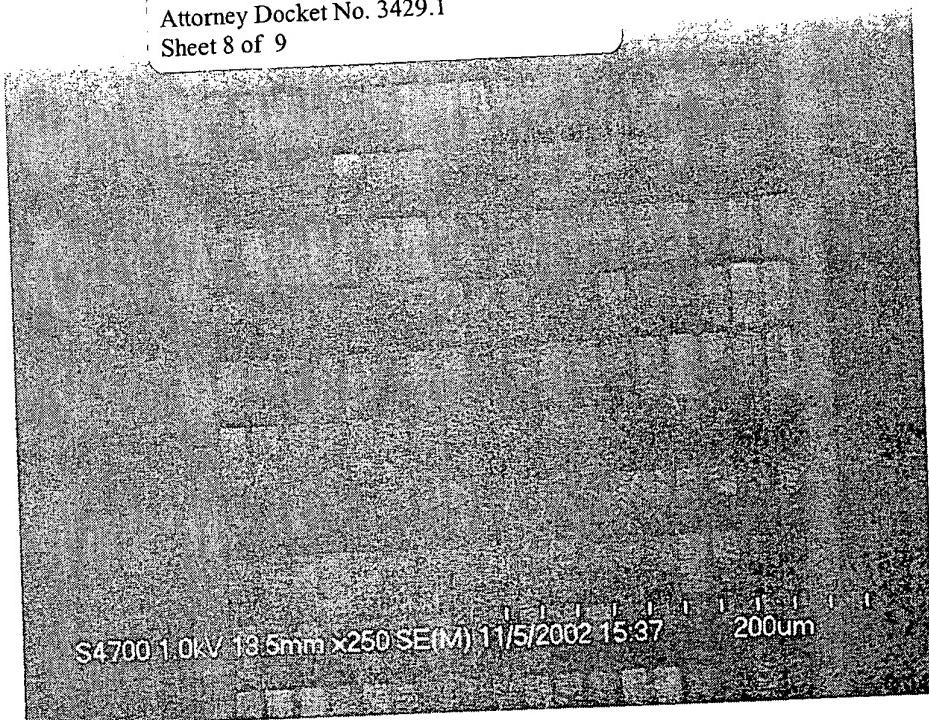
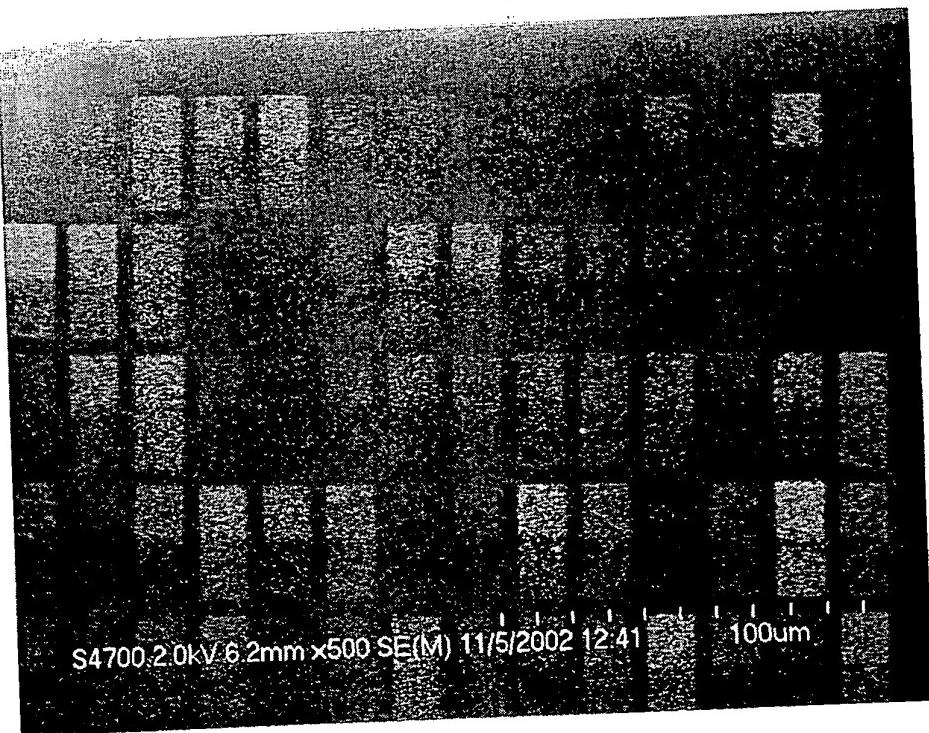
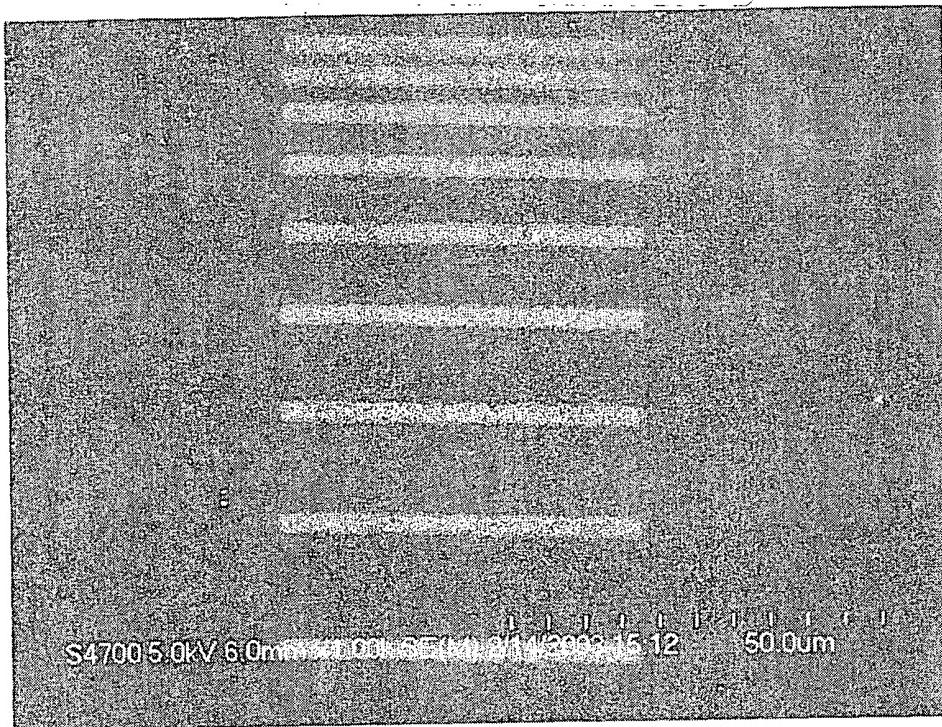


Figure 10

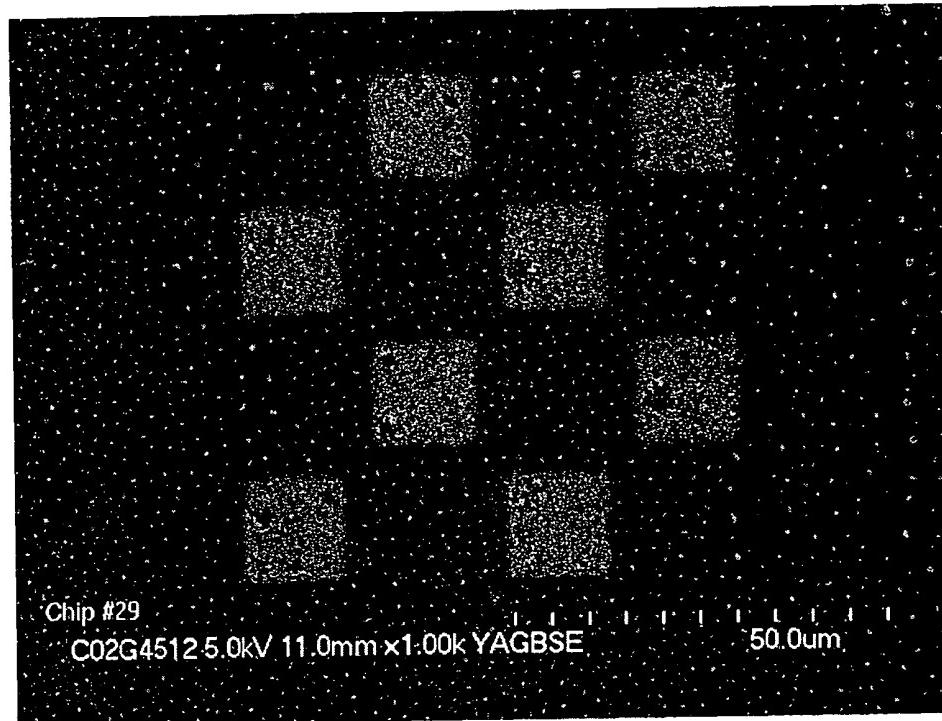
Low magnification SEM  
image of streptavidin-gold  
labeled target in complex  
background





**Figure 11**

SEM image of  
photolithographic  
resolution lines labeled  
with streptavidin-gold.



**Figure 12**

Backscattered electron  
image of checkerboard  
patterned streptavidin-gold  
labeled target.